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A REVIEW OF THE WOLF SPIDER GENUS *HIPPASELLA* (ARANEAE, LYCOSIDAE, SOSIPPINAE)

Éder S. S. Álvares[1,2] and **Antonio D. Brescovit**[1]: [1]Laboratório de Artrópodes, Instituto Butantan, São Paulo, São Paulo, Brazil [2]Departamento de Zoologia, Instituto de Biociências, Universidade de São Paulo, São Paulo, Brazil. E-mail: essalvares@yahoo.com.br

ABSTRACT. The monotypic genus *Hippasella* Mello-Leitão 1944 is revised, and its type-species *H. nitida* Mello-Leitão 1944 is considered a junior synonym of *Tarentula guaquiensis* Strand 1908, from Bolivia. *Hippasella guaquiensis* (Strand) comb. nov. is redescribed and the female genitalia are illustrated for the first time. This species now is recorded from Peru, Bolivia and Argentina. It appears to prefer vegetation near water.

RESUMO. O gênero monotípico *Hippasella* Mello-Leitão 1944 é revisado e sua espécie-tipo *H. nitida* Mello-Leitão 1944 é considerada um sinônimo júnior de *Tarentula guaquiensis* Strand 1908, da Bolívia. *Hippasella guaquiensis* (Strand) comb. nov. é redescrita e a genitália da fêmea é ilustrada pela primeira vez. Esta espécie é agora conhecida do Peru, Bolívia e da Argentina, onde parece preferir a vegetação próxima à água.

Keywords: Neotropical, taxonomy, redescription

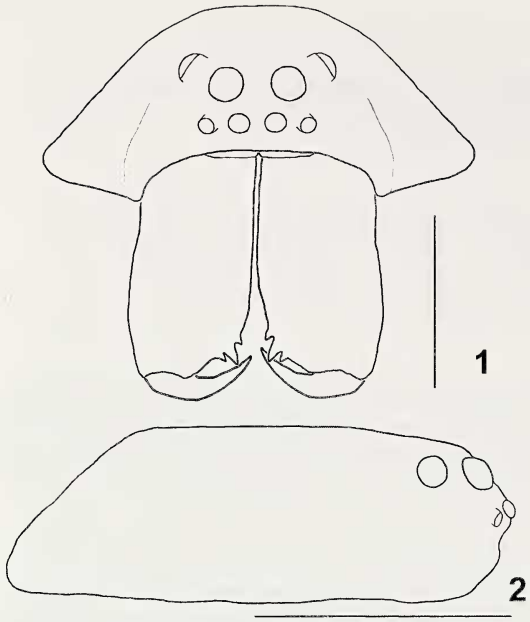
The genus *Hippasella* was proposed by Mello-Leitão (1944) based on *Hippasella nitida* Mello-Leitão 1944, a species known only from a male specimen collected in La Plata, Argentina. The type-specimen of *H. nitida* is an adult male, but it is fragmented and in bad condition. Capocasale (1990) studied the type specimen of *H. nitida* and synonymized *Hippasella* with *Sosippus* Simon 1888, based on the eye arrangement observed on the carapace fragments of the type specimen and on the absence of a palea and of a terminal apophysis in the male pedipalp. However, Sierwald (2000), refering to the figures of Capocasale (1990, figs. 12, 13), pointed out that the male pedipalp of *H. nitida* does not have a long finger-shaped apophysis (apophysis *a* in Sierwald 2000: 136, fig. 7) shared by all *Sosippus* species. Moreover, the original size ratio of the eyes described by Mello-Leitão (1944: 343) for *H. nitida* does not match the ratio observed in the remaining *Sosippus* species. Based on these observations, Sierwald (2000) revalidated the genus *Hippasella*.

For a long time the only known specimen of *H. nitida* was the fragmented type specimen. Recently, after examining Lycosidae material housed in the Museu de Ciências Naturais, Porto Alegre, and in the Museo de Historia Natural San Marcos, Lima, we found some additional specimens of this species, including females. Moreover, after examining the types of *Tarentula guaquiensis* Strand 1908, housed in the Museum Wiesbaden, Wiesbaden, and kindly loaned by Dr. Michael Apel, we detected a new synonym for *H. nitida*. In this paper, we present a more detailed redescription of this genus and the first illustrations of the female genitalia.

METHODS

Descriptions and terminology follow Santos & Brescovit (2001). All measurements are in millimeters. The abbreviations used in the text are the following: ALE, anterior lateral eyes; AME, anterior median eyes; PLE, posterior lateral eyes; PME, posterior median eyes.

The material examined are deposited in the following collections: IBSP, Instituto Butantan, São Paulo, Brazil; MHNSM, Museo de Historia Natural San Marcos, Lima, Peru; MCN, Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul, Porto Alegre, Brazil; MWNH, Museum Wiesbaden, Wiesbaden, Germany; SMF, Naturmuseum Senckenberg, Frankfurt, Germany.



Figures 1–2.—*Hippasella guaquiensis* (Strand 1908), female from Huatajata, Bolivia: 1. Carapace, frontal view; 2. Carapace, lateral view. Scale bars = 2.00 mm.

TAXONOMY

Family Lycosidae Sundevall 1833
Subfamily Sosippinae Dondale 1986
Hippasella Mello-Leitão 1944

Hippasella Mello-Leitão 1944:342; Roewer 1955: 313; Roewer 1960:1002.
Sosippus Simon: Capocasale 1990:140 (synonymy rejected by Sierwald 2000:138).

Type species.—*Hippasella nitida* Mello-Leitão 1944, by original designation and monotypy.

Diagnosis.—Males of *Hippasella* can be distinguished from males of other genera of Sosippinae by the tegular lobe in the pedipalp with a small and pointed lateral apophysis (Figs. 4, 5); a small and membranous median apophysis (Figs. 4, 5); and by a small lobe on the apical edge of the tegulum seen in the ventral view (Fig. 4). Females can be distinguished by the large and flattened median septum, and by spermathecae with a long and sigmoid curved stalk and with a small and not bilobate base (Fig. 8).

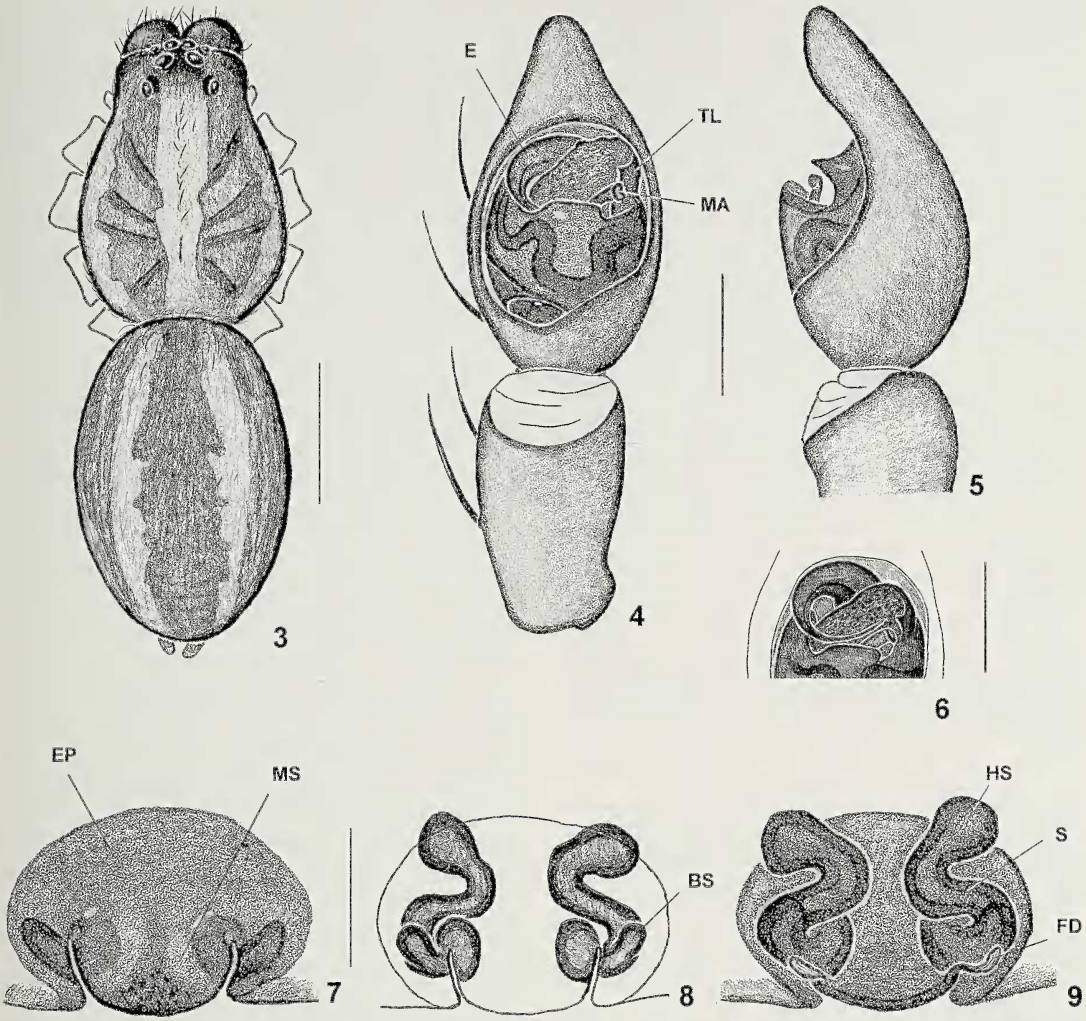
Description.—Small lycosids (length 5.81–8.40 mm). Carapace piriform, flattened dorsally (Fig. 1). Eyes: anterior ocular row slightly procurve (Fig. 2); ocular quadrangle trapezoidal (Figs. 2, 3). Chelicerae strong; promargin with three teeth, the median bigger than lateral ones; retromargin with three big, equal and equidistant teeth. Sternum longer than wide, brownish, covered with grayish setae. Spinnerets: anterior lateral spinnerets conical, posterior median small, posterior lateral with distal segment not elongated. Male pedipalp: tibia cylindrical, 1.67 times longer than wide; cymbium piriform, without distal spines and with basal retrolateral edge dilated; tegulum large, with spermatic ducts visible ventrally, sigmoid; in ventral view (Fig. 4), the apical border bearing a small and transversally elongated projection at median region; retrolateral margin of tegulum with a developed and ventrally pointed tegular lobe (Fig. 5). Median apophysis small, membranous and elongated, with distal end curved ventrally. Embolus with broad base, and distal area filiform and located below the base of median apophysis (Fig. 6). Terminal apophysis absent.

Epigynum: median septum wider than long, flattened, with copulatory openings located anteriorly at its lateral borders (Fig. 7); epigynal plate and posterior half of median septum covered with small setae; atrium reduced, forming a narrow depression at lateral side of median septum. Internally (Fig. 8, 9) spermathecae hardly sclerotized, with small and not bilobate base, located dorsally at the stalk (Fig. 8); stalk elongated, curved in an "S" like shape. Head small, globular. Copulatory ducts large, flattened, and located medially to the base. Fertilization ducts small, membranous, located at posterior margin and curved dorsally (Fig. 9).

Remarks.—The placement of *Hippasella* in Sosippinae is based on the absence of a terminal apophysis and of a developed palea in the male pedipalp. Moreover, retrolaterally the base of the male pedipalpal cymbium of *Hippasella* is enlarged, as seen in species of *Sosippus*, *Aglaoctenus* Tullgren 1905 and *Diapontia* Keyserling 1876, and this character can be added to the diagnosis of Sosippinae.

Hippasella guaquiensis (Strand 1908)
comb. nov.
Figs. 1–10

Tarentula guaquiensis Strand 1908:252.
Lycosa guaquiensis (Strand): Petrunkevitch 1911: 559.
Hippasella nitida Mello-Leitão 1944:343, fig. 32;



Figures 3–9.—*Hippasella guaquiensis* (Strand 1908), from Huatajata, Bolivia: 3. Female body, dorsal view; 4. Male pedipalp, ventral view; 5. Male pedipalp, retrolateral view; 6. Male pedipalp, antero-ventral view; 7. Female epigynum, ventral view; 8. Cleared female epigynum, ventral view; 9. Female epigynum, dorsal view. Abbreviations: BS = base of spermatheca, E = embolus, EP = epigynal plate, FD = fertilization duct, HS = head of spermatheca, MA = median apophysis, MS = median septum, S = stalk of spermatheca, TL = tegular lobe. Scale bars: Figure 3 = 2.00 mm; Figures 4–9 = 0.25 mm.

Roewer 1955:313; Sierwald 2000:138. **New synonymy.**

Trochosa guaquiensis (Strand): Roewer 1955:301.

Sosippus nitidus (Mello-Leitão): Capocasale 1990: 139, figs. 12, 13; Platnick 1993:508.

Type specimens.—*Tarentula guaquiensis*: BOLIVIA: 1 male (without pedipalps), 1 female syntype, Guaqui (not Peru) (16.5°S, 68.8°W), 1907, K. Seyd (MWNH #448); 1 pedipalp of the male syntype mounted on a microscope slide (SMF #13521-138).

Hippasella nitida: ARGENTINA: male holotype, La Plata, Buenos Aires (34.9°S, 57.9°W), M. Birabén (MLP #16035).

Other material examined.—PERU: *Departamento de Pasco:* 2 ♀, Pucayacu (10°39.2′S, 76°14.0′W), 8 May 2005, W. Paredes, D. Causso (MHNSM); *Departamento de Cusco:* 1 ♀, Cusco (13°30.4′S, 71°59.0′W), June–July 1983, M. del Castillo (MHNSM); 2 ♀, Quebrada Jalunmoco Huayco (13°35.7′ S, 71°58.5′W), 23 March 2005, W. Paredes (MHNSM); *Departamento de Puno:* 1 ♀, Arapa, border of Lake Titicaca (15°07.4′S,

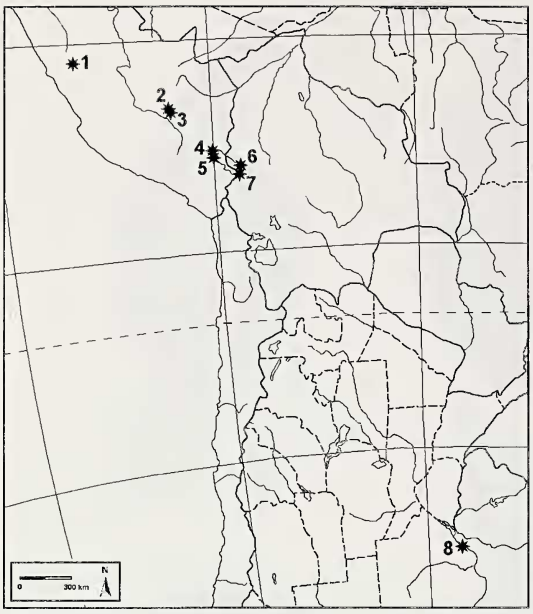


Figure 10.—*Hippasella guaquiensis* (Strand 1908), known records. Peru: 1. Pucayacu; 2. Cusco; 3. Quebrada Jalunmoco Huayco; 4. Arapa; 5. Puno. Bolivia: 6. Huatajata; 7. Guaqui. Argentina: 8. La Plata.

70°06.3′W), November 1948, F. Blancas (MHNSM); 1 ♂ Puno (15°49.6′S, 70°01.3′W), November 1948, F. Blancas (MHNSM); BOLIVIA: *Departamento de La Paz:* 1 ♂, 1 ♀, Huatajata, border of Lake Titicaca (16°06.0′S, 68°42.0′W), 8 August 1993, A.D. Brescovit & H. Höfer (MCN #23788); 1 ♀, same data (IBSP #66977).

Diagnosis.—The same for the genus.

Description.—*Male (Huatajata, Bolivia MCN #23788):* Carapace brownish with gray setae and with 1 dorsal and 1 submarginal pale band, with dark radial bands; eyes surrounded by black areas. Chelicerae, sternum and labium brown; coxae and endites yellowish. Legs: dorsum of femora, patellae, and tibiae yellowish with dark spots; metatarsi and tarsi light brown; venter of femora and tibiae yellowish with brown spots; patellae, metatarsi, and tarsi brown. Abdomen: dorsum with a dorsal longitudinal brown band delineated by black lines and bordered by a pale longitudinal band on each side; sides brown with 4–6 yellowish parallel longitudinal lines; venter yellowish with two median parallel black lines, extending from the epigastric furrow to the middle of abdomen. Spinnerets yellowish. Total length: 5.81; carapace length: 2.98; carapace width: 2.13. Eye diameters: AME 0.14; ALE 0.12; PME 0.22; PLE 0.17. Eye interdistances: AME–AME 0.08; AME–ALE 0.04; PME–PME 0.14; PME–PLE 0.16; PLE–PLE 0.59. Clypeus: 0.07 height. Leg I: femur 1.80/patella 1.05/tibia 1.48/metatarsus 1.48/tarsus 0.92/total 6.73; leg II: 1.79/0.99/1.30/1.39/0.92/6.39; leg III: 1.76/0.82/1.22/1.61/0.89/6.30; leg IV: 2.13/1.07/1.74/2.40/1.17/8.51. Legs, spination: femur I: p0-0-2, d1-1-0, r0, II: p0-1-1, d1-1-0, r0; III: p0-1-1, d1-1-1, r0-0-1; IV: p0 (or p1-0-0, or p0-0-1), d1-1-1, r1-0-0; patellae I-II: p0, r0; III: p1, r1; IV: p1, r1; tibia I: p1-1, d0, r0-1 v2-0-2; II: p1-1, d0-0, r0-1 v2-2-2 or v1r-2-2; III-IV: p1-1, d0-1, r1-1, v2-2-2; metatarsus I: p0-1-1, r0, v2-2-3; II: p0-1-1, r0-1-1, v2-2-3; III-IV: p1-1-1, r1-1-1, v2-2-3 (v3-2-3 in metatarsus IV). Tarsus and distal end of metatarsus of legs I and II weakly scopulate. Pedipalp (Figs. 4–6): see description in the genus.

Female (Huatajata, Bolivia MCN #23788): Coloration as in males except carapace with lateral pale bands almost marginal (Fig. 3), dorsum of abdomen with lateral pale bands darker, and venter of abdomen with a median longitudinal dark band bordered by a lateral pale band on each side. Total length: 8.18; carapace length: 3.96; carapace width: 3.13. Eye diameters: AME 0.20; ALE 0.16; PME 0.29; PLE 0.25. Eye interdistances: AME–AME 0.10; AME–ALE 0.08; PME–PME 0.21; PME–PLE 0.26; PLE–PLE 0.89. Leg I: femur 2.55/patella 1.48/tibia 1.79/metatarsus 1.84/tarsus 1.17/total 8.83; leg II: 2.37/1.45/1.66/1.79/1.12/8.39; leg III: 2.24/1.33/1.48/1.96/1.10/8.11; leg IV: 2.98/1.52/2.22/2.93/1.38/11.03. Leg spination as male, except: femur I: p0-0-1; IV: p0, r0; tibia I: p0, d0, r0, v0-1p-2; II: p0-0-1, d0, r0, v 0-1r-2; III-IV: d0; metatarsus I: p0; II: p0-1-0 or p0, v0. Epigynum (Figs. 7–9): see generic description.

Variation.—Nine females. Total length: 6.96–8.92; carapace length: 3.67–4.07; length of femur I: 2.16–2.55. Three males. Total length: 5.29–7.60; carapace length: 2.98–3.85; length of femur I: 1.80–2.55.

Remarks.—The type locality of *Tarentula guaquiensis* was previously considered to be located in Peru. However, there is no locality called Guaqui in Peru, but there is a locality of the same name in Bolivia, near the edge of

Lake Titicaca, situated close to the border of Peru and Bolivia.

Natural history.—Very little is known about the habits of this species. As the specimens from Huatajata, Bolivia, and Arapa, Peru, were collected near the border of Lake Titicaca, we believe that this species lives in vegetation near water as some other South American Sosippinae.

Distribution.—The only known records are from Peru, Bolivia and Argentina (Fig. 10).

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